

EMPLOYEE TRAINING

APPLICATION OF PESTICIDES AND FERTILIZERS



Photo source: <http://extension.oregonstate.edu/>

YOU HELP PROTECT OUR WATER

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THE PROBLEM

Fertilizers can be important for the health of turf grass, but improper application can pollute lakes and rivers by causing algae to grow from the excess nutrients. The algae use up oxygen that fish and aquatic habitats need to survive.



Pesticides are toxic and must be carefully handled, stored and use. Improper application or spills not only pose a public health hazard but can cause significant environmental harm and can be expensive to clean up and properly dispose of.

MANAGEMENT PROGRAM: PESTICIDES

Proper management of pesticides can reduce or eliminate the risk of spills and leaks and will ensure compliance with state and federal regulations.

- Employee Training: Employees responsible for application must receive training to be **certified** pesticide applicators or registered technicians, and special training may be required for applications near water.
- Recordkeeping: Maintain Material Safety Data Sheets, and details records of the use of all registered use pesticides.
- Storage: Proper storage facilities are needed to minimize the risk of accidental human exposure and provide adequate safety measures in case of spills or leaks.

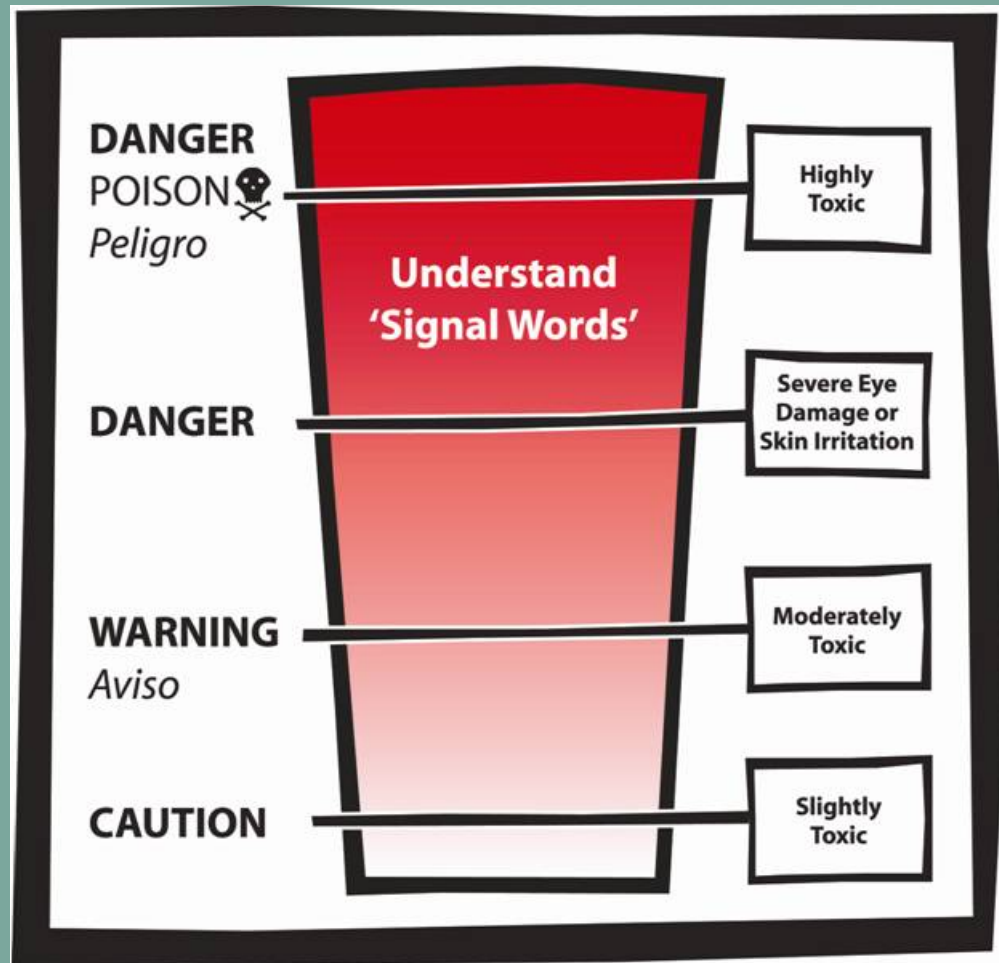
MANAGEMENT PROGRAM: PESTICIDES

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- Integrated Pest Management: Municipalities should consider implementing Integrated Pest Management (IPM) programs on all municipal properties, not just public buildings. While IPM does not necessarily eliminate the need for pesticides, it will decrease their use as well as storage and handling needs. This will reduce risk while saving money and time.
- Hire a contractor: Pest management is often contracted to private companies. Ensure that private companies meet all state and federal requirements and properly meet your pest management needs.

KNOW SIGNAL WORDS

ALWAYS Use the least toxic option available



STORAGE, HANDLING AND APPLICATION

Registered pesticides require special storage and handling. Consider the following tips:

- When mixing or loading pesticides, special equipment, such as ant siphoning devices and shutoff valves, must be used.
- Special spill kits must be available at the site.
- The mixing and loading of pesticides, as well as their storage, must be done in areas specially designed to minimize the risk of human or environmental exposure should a spill or leak occur

MANAGEMENT PROGRAM: FERTILIZERS

- Identify the desired look for a lawn in various locations throughout your municipality and consider its uses (play area, athletics, safety). If it isn't used at all, consider replacing it with alternative landscaping.
- Use only turf grasses or groundcover that are Minnesota hardy.
- Use Phosphorus-free fertilizers, or the best option would be to leave grass clippings as a natural and FREE fertilizer.



Photo courtesy of www.swfwmd.state.fl.us

Whenever possible

- Test soils to determine need ([U of M Extension will do soil testing](#)).
- Follow [recommendations from the U of M](#).
- Mow at a height of at least 3" to promote deep roots and to shade out weeds.

PROTECT CLEAN WATER

Always

- When spreading fertilizer near paved surfaces, adjust your route to ensure fertilizer is not being applied to the pavement.
- Sweep or blow grass clippings or spilled fertilizer back onto lawns to prevent it from entering storm drains, ditches and then lakes and rivers.
- Keep fertilizer applications at LEAST 20-15 feet away from the edges of river, lakes and streams.
- Store fertilizer in well marked containers in closed areas to avoid spills.
- Wash out spreaders on the lawn, not on paved surfaces.



Determine if the lawn has a widespread or minor weed problem. For small problems, spot treat as opposed to broadcast treating.

Never fertilize when soils are frozen or saturated, this can lead to runoff that will pollute lakes and rivers.

ENVIRONMENTAL CONCERNS



Photo courtesy of www.scientificamerican.com

- Drift: Drift of spray from pesticide applications can unintentionally expose people, pets, wildlife, and the environment to pesticide residues, resulting in accidental damages or killing non-target species. DO NOT apply on windy days.
- Improper Dose: Failure to read and carefully follow the label directions can result in over application of pesticides. The excess chemicals can remain on the surface and become a hazard to people, pets, or wildlife or runoff into storm drains or surface waters. Also, frequent exposure to particular pesticides can cause some pests to develop a resistance, ultimately requiring more frequent applications or rendering them ineffective.

ENVIRONMENTAL CONCERNS

- Using the Wrong Pesticide: Using a pesticide not specific to the target pest or the target's life cycle is not only ineffective in managing the pest, but can result in accidental damages or killing non-target species.
- Improper Application: Broadly applying pesticides over large areas increases the potential damage to non-target species; exposure to humans, pets, or wildlife; and runoff into storm drains or surface waters. Also, applying pesticides to or near surface waters may require special permits.



QUIZ TIME

1. True or false: Fertilizers that have spilled on to paved surfaces can be left because they provide food for fish. **FALSE! Fertilizers that runoff into lakes and rivers reduce oxygen in waterways and choke out fish.**
2. What can you do to reduce the use of pesticides?
Answer: **Implement an Integrated Pest Management Program.**
3. The best way to determine the fertilizer needs of a lawn is to:
Answer: **Test the soil through U of M Extension Services.**
4. One option for an area where a lawn isn't used is to:
Answer: **Replace it with alternative groundcover.**

THANKS FOR HELPING TO PROTECT
OUR WATER RESOURCES!